Developing an Integrated Networking Strategy for Sustainable Growth of Grey Cement Industry in Selected Markets of North India

A SYNOPSIS

Submitted by

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1. Introduction

Cement is a binding agent which is used in the construction activities. With the overall economic conditions in India, the cement industry is experiencing a surge in demand. The cement industry recorded an exponential growth after partial decontrol in 1982 and total decontrol in 1989. India is the second largest producer of quality Cement in the world after China, with a total volume of 224 MT (million tones) produced by about 139 large and 365 mini cement plants in 2012. Currently the top players like Ultratech, ACC, Ambuja, Jaypee, Shree and India cement controls more than 50 percent Indian market. Overall there are around 40 players across India in cement Industry. In the next decade, with India's GDP growing annually by about 8%, there will be paramount demand of infrastructure, and the Cement industry is expected to increase to 600 MT by 2020. As per the working group's report on the industry for 12^{th} five year plan (2012-17), India would require an overall capacity of 480 million tons which means a capacity addition of approx 150 million ton with 100% capacity utilization. The Indian cement Industry has shown remarkable growth and has steadily increased production at a high rate since the 4th Five Year plan which was around 25-26 MT. As the demand for Cement surges, the Indian cement industry will have to enhance capacity of production to compete against the multinationals which are entering the Indian market. Success for a company will also include adapting Business strategies, to compete against the global players. The growth of this sector can be determined by analyzing industry trends and governmental data. We will look at the business strategies specifically in terms of consolidation, globalization, targeted customer strategies, R&D, corporate governance, innovation and branding. In emerging economies, particularly in Asia, demand will increase more significantly. Therefore, expansion will be there in growing economies and this is an important aspect of global strategy. There are three major macro-level overhauls that conglomerates need to integrate. Most large global as well as domestic players have multi-product businesses in the building materials segment and a key focus is to maintain the strategy of vertically integrating core activities like supply chain management.

All major cement companies in India are producing world class cement and among so many factors supply chain management is one of the most important factors for the success of any cement company. This Industry is logistics driven and delivery of material from plant to the consumer contributes a significant component of total cost.

1.1 Variate structure

There will be multiple variables like cost of delivery, mode of delivery, expected service level, protect quality, warehousing management, creating facilities, use of technology, lot size, lead time, Inventory management, managing seasonality, optimal handling operations.

1.2 Rationale

The Indian cement industry is the second largest in the world and it is one of the matured industries in India. There are several national as well as international players in India in

cement industry with world class quality available throughout. In spite of such a large volume and positioning, there is still ample scope of growth as the per capita consumption is much lower (less than 200 Kgs) than world average (around 400 Kgs). This is one of the major reasons of multinationals eyeing the Indian market and world leaders have already entered the Indian market with their manufacturing capacities. This industry has seen consistent year on year growth irrespective of economic conditions. This industry is logistics driven where logistics contributes a good component of total cost and the same is increasing year after year. On one hand so many companies have grown consistently and at the same time others have hived off their cement business. The acquired plants are running successfully and contributing well to the overall business. Since the impact of supply chain management is too big on the total cost of material, it makes a significant impact on the bottom line of the balance sheet of any company as the cement price is market sensitive. An improvement in supply chain management will make an overall positive impact to the company and business.

1.3 Objective

1. To study what are the critical factors in successful supply chain networks.

2. To focus on building the strategy on outward supply chain management aspects as well as strong channel networking for the improvement in existing supply chain practices and also considering the sustainability in line with expected growth in the industry.
3. To make an analysis of supply chain cost in light with prevailing practices and expected level of different stake holders.

2. Review of literature

Lee & Billington (1995) defined Supply Chain Management as a set of activities which facilitates the production of raw materials, transform them into intermediate products, final products, and deliver it to end customers through a distribution system. It spans procurement, manufacturing and distribution. Dubey and Chakrabrty (2011) discussed that in a time when the world was passing through tough economic situation, Indian cement sector has registered a good performance showing the strength of the sector. Innovative supply chain activities coupled with total quality management can help firm in cost reduction and improvement in customer satisfaction which in tern will improve profitability and improve market share. The finding reveals that Indian cement industry is at its novice stage to adopt innovative supply chain practices. Madhavi Dhole (2011) stated in his study that though the industry is performing well consistently but there are various challenges. The industry is highly cyclical in nature and its performance largely depends on the health of economy. The sales and consumption of cement follow a seasonal pattern with lean sales during Monsoon season and high sales during October to march.

Finch (2006) defined that the main role of supply chain management is to optimize the performance of the chain so as to add maximum value to the extent possible at least

possible cost. It aims to integrate the supply chain agents in such a way that it cooperate within the firm as a way to maximize productivity in the supply chain and is beneficial to all related parties. Emiliani, M.L (2003) discussed that It is important to examine the interest of both buyers and sellers and the conflict is inevitable between them. Focus is required on management's understanding on the term "maximise share holder value" as it poses a lot of challenges on improving the supply chain facilities.

R. Sathya (2012) studied the profitability index of cement industry. Industry analysis is important to know so that relevant focus could be given to different companies and parameters. Profitability is an important aspect and the analysis of it with several years data gives an understanding about the growth trajectory of the industry which is important from strategic point of view. Tapan Sahoo et al. (2011) developed a conceptual framework for auto industry using technology. Like cement industry, auto industry is also a sunrise industry with 5% contribution to GDP in 2006 it is poised to rise around 10% by 2016. Auto industry is very important and plays a key role w.r.to supply chain management. On one hand the industries have similarities and on the other hand the role of this sector is high in logistics management. This industry has taken a good use of technology and analogies may be drawn from it for the benefit of study.

R. Mohammed Ilyas et al. (2005) discussed that there are different parameters which plays a key role in value chain. Utility of technology is very important in supply chain management and manufacturing sector is no exception to it. The value chain management may be further classified in different categories like virtual, dynamic, static and knowledge focused value chain management. The identification of parameters is a challenging task. IT plays a supportive role in enhancing the productivity of value chain.

Michael A. McGinnis et al (2010) discussed that the role of logistics is recognized in literature since 1960. More importance was given on strategic issues of logistics during eighties and early nineties. Today it is a full fledged stream. Numerous concepts and definitions are proposed to suit as per the relevant perspective. However Cousins et al. (2006) and Storey et al. (2006) provided excellent review on supply chain management literature. Ashraf Mohammad Salem Alrjoub et al. (2012) emphasized that working capital management is a crucial issue for any company or business. The role of supply chain is very important in a large company like cement where volumes are high at all levels and so improvement in supply chain management would help in working capital management issues.

Deepak Tandon et al. (2012) described that the understanding of sectoral analysis is equally important especially from strategic point of view. There have been several acquisitions and mergers in the industry in last decade which included mega mergers. Possibilities are always there as few players want to hive off their capacities and at the same time it is a value preposition for others to acquire such units. H.-Y. Wang et al. (2010) discussed that many industries are cyclic in nature. There emerges a situation in supply chain where there is a capacity constraint in the middle. This includes restricted stage, half restricted stage and unrestricted stage. This thing is highly applicable in

cement Industry. A dynamic model for serial supply chain with periodic delivery policy with outbound dispatching policy was discussed.

Soonhong Min and John T Mentzer. (2000) explained that the concept of marketing concept, market orientation, relationship marketing and SCM are not separate. Infact they can not work in isolation while working in the interest of the organization. A proper integration of all these is must in the interest of the organization. Johnson, P Zineldinm. (2003) discussed the importance of having good working relationship between supplier and dealer. For the trade business in cement, long term stable business relation workability will make a good impact on business. This includes even the behavioral aspects like trust level as well as commitment value.

Gunasekaran and McGaughey. (2003) discussed the scope of SCM which was extended beyond functions like material management, partnership, information technology to the Total Quality Management areas like management commitment, organizational structure, training & development and behavioral aspects. As firms' survival depends on integration, clarity of the integration process is a key aspect in SCM. Mouritsen et al. (2003) emphasized that basic hypothesis "the more integration (wider the scope) – the better the management of the chain" is not true always and proved that it also dependent on the "environment" of the supply chain and the power relations among the participants in the supply chain.

During the literature review it was observed that the literature is available on supply chain management as well as on cement Industry separately however there is hardly any literature available on supply chain management in cement Industry. There is an enough gap and scope in working on this topic.

3. Method

3.1 The study

It will be a descriptive research which will be based on the study of existing practices being followed by the different companies and the expected level in line with the future capacities and players in the industry. The study would give an insight of relevance of activities and expectation of different channels and stake holders. Practices of related industries or the industries which involves similar kind of activities due to its volume, pattern of business or customer base etc. would also be studied. Expectations of different stakeholders too need to be understood so as to accommodate the relevant factors while forming the strategy.

The role of supply chain management and its significance would be studied. It would be analyzed that whether a uniform strategy is required by a company or there needs a differentiation for different segments. Also it will be analyzed as if extra cost of logistics may be passed on to the customers.

Study would be done in Rajasthan which is considered to be a cement hub in the northern region and in western UP where no green field cement plant is available.

3.2 The Design

Different companies are using different methods to remain in the market. There are certain good tools, methods and strategies with all the players however each have certain limitations and either of these components are not common in all. Segments of different companies and relative focus too may be different. This industry is a logistics driven and so a strong supply chain is needed to be on the top in the industry. Network plays a key role in success of any company and its management is a key success factor for sustainable business growth.

There is a scope of data collection with channels partners available throughout. There is a large number of people working in different companies of the industry, lot of agencies are involved which are rendering services to the companies and a number of past, present and future customers of cement. There is cement manufacturing association body from where some data may be sourced. Also numerous organizations of influencers like architects, engineers, masons and builders may be good sources of desired inputs.

3.3 The Sample

3.3.1 Size

The size of the sample would be large and around 700-800 Numbers of channel partners of different size would be covered. Channel partners are mainly those traders who sell the cement to the customers and buy it either from the company or from the authorized source of the company. Broadly there are two layers of channels in the industry namely whole sellers and retailers. The population of channel partners is very large and this sample size would give us good results. There will be structured as well as unstructured questionnaire and it will be designed considering the type of respondents.

3.3.2 Procedure

Primary as well as secondary data will be collected.

Primary Data: It will be collected through survey, personal interviews, telephonic interviews and mailers. Industry people would also be approached for related insight.

Secondary Data: Related agencies and bodies would also be approached to gather the information as well as secondary data. Government updates, authentic company's websites and authentic industry updates will also be used.

3.4 The Tools

3.4.1 For Data collection

Questionnaire will be one of the most important tools for data collection. Structured as well as unstructured questionnaire will be used to collect data and information. There will be the collection of both primary as well as secondary data. Both quantitative as well as qualitative data will be collected through surveys, mailers, telephonic interviews, personal discussions etc. Data will also be collected from the different sources including related bodies working in cement and related industries. Also the Government updates and company's websites will be used for relevant information and data.

3.4.2 For Data Analysis

Based on the data, quantitative analysis will be done using different statistical tools like factor analysis, chi square test, correlation, regression, ANOVA and other applicable tests would be used. The help of advanced statistical tools like SPSS would also be taken for calculations.

4. Possible outcomes

Supply chain management is playing a good role and with the consistent capacity addition the future will be more important and crucial in forming a good strategy for effective organization in the industry. Network creation and management is equally important and strategy needs to be made so as to achieve success in the overall competitive market. All the aspects of quality, cost, delivery and services (QCDS cycle) are and will be crucial. Creating and maintaining good layers of channels, vendor and customer base and service level with effective and optimal use of resources to form a strategy for successful run of the company with better than industry growth with enhanced share holder's value. The research should build a good strategy to fulfill the researcher's objective.

5. Scope of further research

There will be scope of further research on the subject due to the dynamic nature of business. New applications of product or new ways of applying the product may come up, which may have different or modified expectations from supply chain management. Also it may be done on additional or different variables. Apart from this the study may be extended to different geography.

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